

1.0 INTRODUCTION

1.1 PROJECT OBJECTIVES, PURPOSE AND NEED

Venoco, Inc. (Venoco) (the Applicant) is an oil and gas company that has filed an application with the California State Lands Commission (CSLC) to expand oil development on leases PRC 3120 and PRC 3242 from Platform Holly off the coast of Santa Barbara county and to install a new pipeline from the Ellwood Onshore Facility (EOF). The new pipeline would connect to the existing All American Coastal Pipeline (AACP) at Las Flores Canyon (LFC) and eliminate all operations at the Ellwood Marine Terminal (EMT). Figure 1-1 provides an aerial view of the existing Venoco Ellwood operations, including oil and gas facilities and lease locations. Details have been added to the aerial view in the figure to depict the proposed boundary expansions and the proposed new connecting pipeline route.

For the proposed Venoco Ellwood Oil Development and Pipeline (Full Field Development) Project (the Project), the Applicant presents three objectives, listed below, in order to explain the necessity of the Project and guide the development and evaluation of feasible Project alternatives. State California Environmental Quality Act (CEQA) Guidelines section 15126.6(a) requires the Applicant to provide a description and analysis of a range of reasonable alternatives that would feasibly attain most of the basic objectives of the Project. The Applicant's basic objectives for the Project are to:

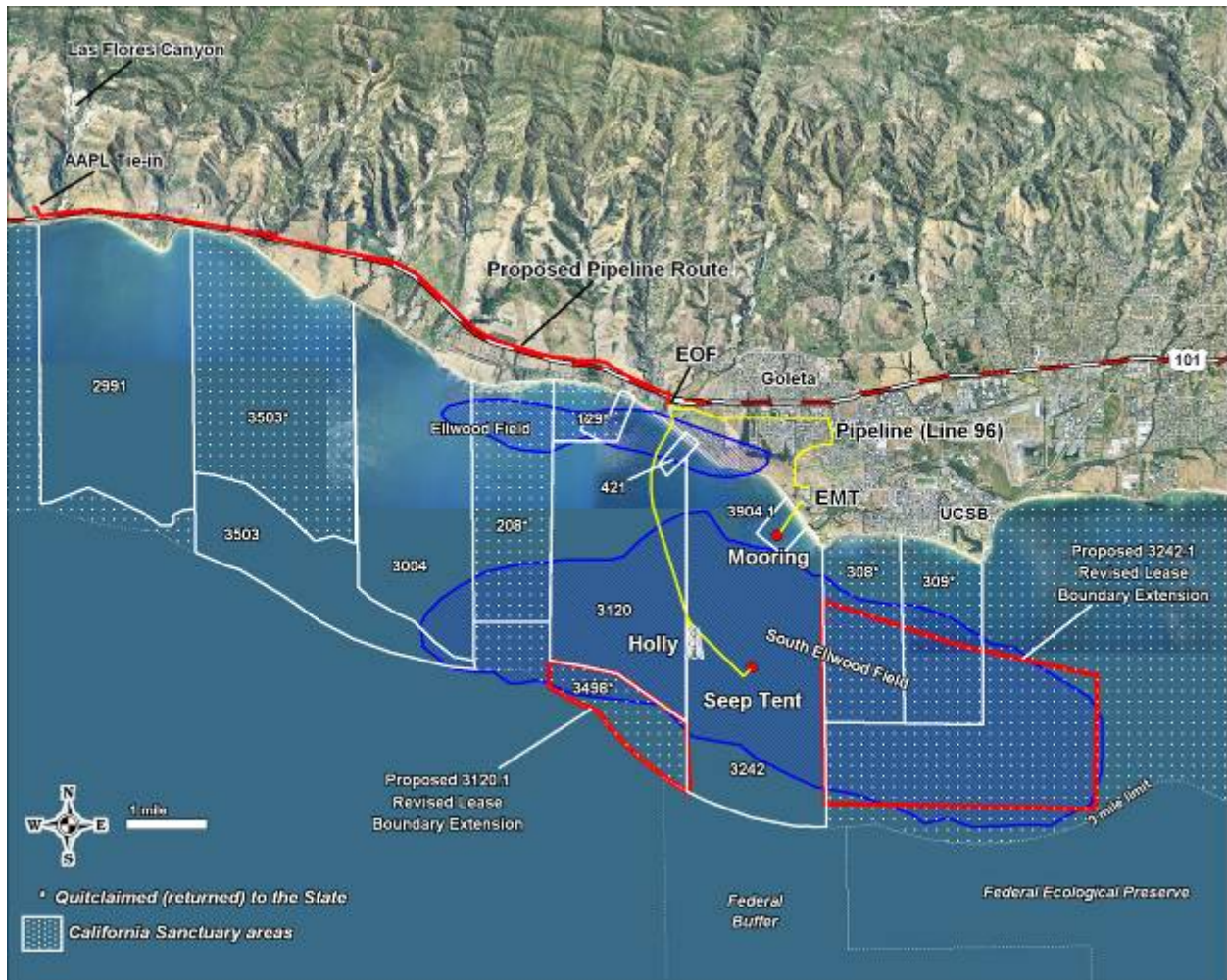
- Extend the oil and gas lease boundaries of PRC 3120 and PRC 3242 to encompass more of the South Ellwood field, and drill up to 40 new wells from Platform Holly;
- Improve and upgrade the existing EOF; and
- Install a new pipeline system which will eliminate all operations at the EMT, including the associated barge operations.

1.2 PURPOSE AND SCOPE OF EIR

The CSLC has prepared this Draft Environmental Impact Report (Draft EIR or EIR) in accordance with the CEQA to assess the potential for environmental impacts associated with the extension of the lease boundaries and associated expansion in petroleum production, modifications to Platform Holly and the EOF, abandonment of the

- 1 EMT, and the construction and operation of a new pipeline between the EOF and the
- 2 existing AACPL at LFC.

**Figure 1-1
Leases and Applicant Facilities**



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- 4 Section 15124(d) of the State CEQA Guidelines requires that an EIR contain a
- 5 statement within the Project description, briefly describing the intended uses of the EIR.
- 6 The State CEQA Guidelines indicate that the EIR should identify the ways in which the
- 7 Lead Agency and any responsible agencies would use this document in their approval
- 8 or permitting processes. The following discussion summarizes the roles of the agencies
- 9 and the intended uses of the EIR.
- 10 The CSLC is serving as the Lead Agency responsible for preparing the EIR. The
- 11 Applicant has rights under State leases (PRC 3120 and PRC 3242) with respect to

existing offshore oil and gas development (including Platform Holly and associated pipelines), as well as pipelines and other improvements associated with the EMT (under lease PRC 3904.1). The CSLC, under Public Resources Code §6872.5, has the authority to extend the boundaries of the offshore oil and gas leases. The EIR will be used by the CSLC to make findings, as appropriate, to be able to extend the boundaries of leases PRC 3120 and PRC 3242 in State sovereign lands. In addition, the CSLC will use the EIR to consider approval or denial of the Project.

Santa Barbara county, the city of Goleta, and the California Coastal Commission (CCC) also have jurisdiction over portions of the proposed Project and are serving as part of a Joint Review Panel (JRP) with the CSLC. The proposed Project will also be considered or reviewed by a number of other State, Federal and/or local agencies as noted in Section 1.4, Permits, Approvals and Regulatory Requirements.

1.2.1 Organization of Draft EIR

- Section 2.0, Project Description of this Draft EIR - describes the proposed Project, its location, layout and facilities, and presents an overview of its operation;
- Section 3.0, Alternatives - describes the alternatives to the proposed Project carried forward for analysis, and alternatives that were considered but eliminated from detailed evaluation;
- Section 4.0, Environmental Analysis - describes existing environmental conditions, project-specific impacts and mitigation measures, and the impact analysis of the alternatives. Section 4.0 also identifies the cumulative projects and evaluates the impacts of the proposed Project in conjunction with the impacts of the cumulative projects;
- Section 5.0, Environmentally Superior Alternative - presents a comparison of the environmental impacts of the project and the alternatives, and identifies the environmentally superior alternative;
- Section 6.0, Other CEQA Sections - addresses other required California Environmental Quality Act elements;
- Section 7.0, Mitigation Monitoring Program - presents the Mitigation Monitoring Program (MMP);

- Section 8.0, Report Preparation Sources - presents information on the qualifications of those who prepared the report;
- Section 9.0, References - lists reference materials used to prepare the report;
- Appendix A, Distribution List to this Draft EIR - contains the mailing list of organizations and entities who received a copy of this document;
- Appendix B, Notice of Preparation to this Draft EIR - contains the Notice of Preparation (NOP), and copies of comments received on the NOP, including the locations in the Draft EIR and where the comments are addressed; and
- Other technical appendices are also included in this Draft EIR.

1.2.2 Study Area Boundary

The study area for this Draft EIR has been established in three tiers of scope. The first tier of the detailed study covers the area most susceptible to an offshore oil spill, which is the section of coastline extending from Goleta Point to the Ellwood Pier. The second tier covers the area between Goleta Point and the AACP tie-in located near El Capitan; this study area is important in the evaluation of onshore pipeline and offshore pipeline alternatives. The third tier of the detailed study covers the area of coastline between the Port of Los Angeles and the San Francisco Bay, a study area which is necessary to describe potential benefits associated with the abandonment of the EMT that would occur as a result of the proposed Project. The areas of these three tiers of scope are identified in more detail in Section 2.0, Project Description.

1.2.3 Definition of Current Baseline and Future Conditions

The Applicant is currently producing oil and gas from existing leases at Platform Holly. Those leases include State leases PRC 3120, PRC 3242, PRC 3904, and the currently idle PRC 421. Platform Holly is sited within lease PRC 3242.1.

Produced crude oil and gas from Platform Holly are transported to the EOF for processing. After processing, gas is injected into the existing Southern California Gas Company (The Gas Company) lines from the EOF. Crude oil is then transported through the existing Line 96 to the EMT, where the crude oil is stored in two onshore tanks. From there, oil is pumped into a pipeline for loading into the Barge *Jovalan*. The Applicant typically loads the barge two to three times per month with 55,000 barrels (bbls) (8,744 m³) of crude oil per load. The oil is transported to refineries in Los

Angeles, Long Beach, or the San Francisco Bay area. The EMT operates under CSLC offshore lease PRC 3904.1, an onshore lease from the University of California Santa Barbara (UCSB), and under Santa Barbara county permits as a non-conforming use. The Applicant recently requested a lease extension from the CSLC to continue operation of the EMT through February 28, 2013. An aerial view of Platform Holly, the EOF, and the EMT is provided in Figure 1-1.

The existing project also includes interconnecting pipelines, the Ellwood Pier, and an access road easement to PRC 421 (See Figure 1-1). In addition to these facilities, the existing 24-inch (0.6 m) AACP, which is a common carrier pipeline and an integral part of the proposed Project, is located near the entrance to the LFC, approximately eight miles west of the EOF.

Platform Holly wells currently produce gas and crude oil from the South Ellwood Field. The South Ellwood Field currently produces approximately 3,100 barrels per day (BPD) (477 m³/day) of oil and 5.2 million standard cubic feet per day (MMSCFD) (147,247 m³/day) of gas. The Applicant is permitted by the Santa Barbara County Air Pollution Control District (APCD) to produce up to 13,000 BPD (2,067 m³/day) of crude oil from the EOF and up to 20 MMSCFD (566 Mm³/day) gas. The EMT loading limit permitted is 5.5 million bbls per year, which comes to approximately 100 barge trips per year.

In this EIR, potential impacts of the existing Applicant's operations are analyzed in the context of the environmental conditions existing at the time the NOP was released for the proposed Project on June 28, 2006. Under the proposed Project, the EMT, which currently handles all the oil production from the South Ellwood Field, would be replaced by an onshore pipeline.

A total of up to 40 wells would be drilled under the proposed Project; however, the existing number of well slots (30) would not change. Examples of areas where the Applicant would attempt well bottom-hole locations include the following:

- Three in-fill wells on the existing PRC 3120 and PRC 3242 leases;
- Seven wells on the proposed lease extensions;
- Five wells in the "North Flank" fault block (located to the north of Platform Holly in the existing lease PRC 3120);
- Two wells in the "Eagle Canyon" fault block (located to the north-west of Platform Holly in the existing lease PRC 3120);

- Three wells to the Lower Sespe on PRC 3120 (located to the west of Platform Holly in the existing lease PRC 3120); and
- Twenty mechanical replacement wells.

Drilling activity would commence concurrently with the facility upgrades at the EOF, and would most likely occur between the years 2008 and 2010. The first wells likely to be drilled would be in-fill wells and the five wells proposed for the North Flank fault block. The lease extension and Eagle Canyon fault block wells would most likely be drilled starting in 2012. The mechanical replacement wells would commence in 2015, and would likely include one or two replacement wells per year until 2030.

Platform Holly was originally designed to withstand a 500-year seismic event. Analyses conducted by the Applicant and Mobil Oil Company, the previous owner, recently found that Platform Holly still meets these seismic standards. In conjunction with the preparation of this Draft EIR, a complete assessment of the platform structure to meet 1,000 year seismic event criteria was performed with CSLC oversight in accordance with the industry standards requirement RP2A Section 17 of the American Petroleum Institute (API) Planning, Designing, and Constructing Fixed Offshore Platforms (21st Ed.) The proposed structural up-rating calculations take into account the new loads associated with drilling of wells into the lease extension. After CSLC acceptance of the findings, a retrofit upgrade of the platform structure would be designed and submitted to the CSLC for approval.

Preliminary results of the structural evaluation (Venoco 2007, CSLC 2008) indicate that minor repairs and modifications would be required for Platform Holly to meet the 1,000 year seismic standard. These modifications and repairs include Platform Holly topside upgrades (reinforcement of plates, structural members and stiffeners to existing platform trusses, connections and columns) and subsea work (dents and a crack repair) would be required. It is expected that all Platform modifications and repairs would be accomplished during Venoco's normal inspection, maintenance and repair schedule.

Based upon the anticipated drilling schedule, it is expected that the Platform Holly oil output rate would peak at roughly 12,600 BPD (2,004 m³/day) around five years after start of the Project, and decline slowly after that peak. The rate of water disposal at the platform is expected to increase up to a maximum of approximately 11,300 BPD (1,797 m³/day) towards the end of the life of the Project. Total emulsion to shore would continue to be at or below 20,000 BPD (2,068 m³/day). Platform gas production would

peak at approximately 13 MMSCFD (368,119 m³/day) at about five years, and start to decline after that peak.

Production rates are governed by depletion of the oil and gas reservoir. The ultimate life expectancy of the reservoir is subject to uncertainty, due in part to unknown variables which include size, ultimate yield of the reservoir, oil and gas prices, future drilling costs, lifting costs, future abandonment costs, and other market conditions.

The proposed Project would provide upgrades to six existing systems at the EOF: (1) Sulfur Separation, (2) Carbon dioxide (CO₂) removal, (3) Low Temperature Separation (LTS), (4) Gas Compression, (5) Controls and Monitoring, and (6) Liquefied Petroleum Gas (LPG) and Natural Gas Liquids (NGL) storage. In addition, the proposed Project would install a new power generation system incorporating waste heat recovery and retrofit installation of low nitrogen oxide (NO_x) burners on the existing burner. Modifications to the EOF may be performed concurrently with installation of the new onshore oil pipeline; the modifications work would be confined to the existing facility with no expansion beyond the current site footprint.

As part of the proposed Project, oil produced from Platform Holly, following processing at the EOF, would be transported for sale to refineries through a new onshore pipeline. The installation and use of a new onshore pipeline to connect to the AACP at LFC would allow abandonment of the existing EMT and the discontinuation of barging. Figure 1-1 shows the proposed routing of the new EOF to LFC connecting pipeline.

The proposed EOF to LFC pipeline system would include approximately 8.5 miles of six-inch (0.15 m) diameter pipe manufactured in accordance with ANSI/API Specification 5L for line pipe. The pipeline would be coated with fusion bond epoxy and covered with polyethylene outer wrap tape. Shrink sleeves, or their equivalent, would be applied to all pipe field joints. The pipeline would be cathodically protected and have motor operated, remotely-monitored block valves and associated check valves.

The pipeline would be routed within existing road rights-of-way and adjacent to existing water, gas, and electric utility services for approximately 90 percent of its length. There is an existing pipeline corridor owned and operated by The Gas Company along much of the proposed pipeline route. Where appropriate, the Project would locate the new pipeline as close to The Gas Company pipelines as allowed by existing right-of-way agreements and Federal and State regulations. The pipeline would be installed with a minimum three-foot cover (one m), and would have a deeper installation at creek crossings and other areas susceptible to scour and pipeline exposure.

1 The primary information sources for the Applicant's existing operations include the
2 Lease Application (Venoco 2005), additional data provided by the Applicant, and site
3 visit inspections and assessments from the CSLC and other agencies. Also, local
4 planning documents were referenced from Santa Barbara county, UCSB, and the city of
5 Goleta. Online information and Geographic Information System (GIS) resources were
6 also used.

7 In this EIR, the baseline environmental conditions for the outer coast are incorporated
8 by reference from numerous previous documents using a short summary as pertinent,
9 for the applicable environmental discipline sections. Some of these previous
10 documents include environmental analysis prepared for the Channel Islands National
11 Marine Sanctuary (CINMS); documents from the Monterey Bay National Marine
12 Sanctuary (MBNMS); biological surveys conducted by the California Department of Fish
13 and Game (CDFG), U.S. Fish and Wildlife Service (USFWS), the National Oceanic and
14 Atmospheric Administration (NOAA), and the U.S. Geological Survey (USGS);
15 environmental studies prepared by Santa Barbara county and the U.S. Minerals
16 Management Service (MMS); and numerous peer-reviewed journal articles.

17 **1.3 PUBLIC REVIEW AND COMMENT**

18 **1.3.1 Scoping Process**

19 The CSLC, as Lead Agency in accordance with the provisions of the CEQA, determined
20 that the proposed Project may result in potentially significant adverse environmental
21 impacts and, therefore, required preparation of this Draft EIR pursuant to and in
22 accordance with the CEQA (Public Resources Code, section 21000 *et seq.*), the State
23 CEQA Guidelines (California Administrative Code, section 15000 *et seq.*), and the
24 CSLC guidelines for implementing the CEQA.

25 On June 28, 2006, pursuant to the State CEQA Guidelines (sections 21080.4 and
26 15082(a)), the CSLC provided an NOP for the proposed Project to responsible and
27 trustee agencies and to other interested parties. The NOP solicited both written and
28 verbal comments on the EIR's scope during a 30-day comment period and provided
29 information on a forthcoming public scoping meeting. The CSLC held two public and
30 agency scoping meetings in Goleta, California on July 24, 2006, to solicit comments on
31 the scope of the EIR. Oral and written comments were received in response to the
32 NOP from the following:

- 1 • U.S. Army Corps of Engineers;
- 2 • U.S. Postal Service;
- 3 • California Regional Water Quality Control Board (RWQCB);
- 4 • California Department of Fish and Game (CDFG);
- 5 • Santa Barbara County APCD;
- 6 • Ventura County APCD;
- 7 • Santa Barbara County Fire Department;
- 8 • Environmental Defense Center;
- 9 • League of Women Voters of Santa Barbara, Inc. (Connie Hannah);
- 10 • League of Women Voters of Santa Barbara, Inc. (Jean Holmes);
- 11 • Gaviota Coast Conservancy;
- 12 • Get Oil Out! (GOO);
- 13 • Robert Sollen;
- 14 • Diane Conn;
- 15 • Suzanne Null; and
- 16 • Kathleen Gebhardt.

17 A copy of the NOP, mailing list, meeting transcript, comment letters received, as well as
18 an index of where such comments are addressed in the document, are included in
19 Appendix B, Notice of Preparation. In addition to the NOP scoping meeting, a Project
20 update and overview public workshop was held on January 18, 2007, in Goleta.

21 **1.3.2 Public Comment on Draft EIR**

22 This Draft EIR is being circulated to local, Federal and State agencies and to interested
23 individuals who may wish to review and comment on the report. Written comments may
24 be submitted to the CSLC during the 60-day public review period. Verbal and written

1 comments on this Draft EIR will also be accepted at a planned public meeting with prior
2 public notice, (the public notice will be either included in this document or under
3 separate cover). All comments received will be addressed in the Final EIR for the
4 proposed Project.

5 This EIR identifies the environmental impacts of the proposed Project on the existing
6 environment; indicates how those impacts will be mitigated or avoided; and identifies
7 and evaluates alternatives to the proposed Project. This document is intended to
8 provide the CSLC with the information required to exercise its jurisdictional
9 responsibilities with respect to the proposed Project, which would be considered at a
10 separate noticed public meeting of the CSLC.

11 The CEQA requires that a Lead Agency shall neither approve nor implement a project
12 as proposed unless the significant environmental impacts have been reduced to an
13 acceptable level. An acceptable level is defined as eliminating, avoiding or substantially
14 lessening significant environmental effects to below a level of significance. If the Lead
15 Agency approves the Project, even though significant impacts identified in the Final EIR
16 cannot be fully mitigated, the Lead Agency must state, in writing, the reasons for its
17 action. Findings and a Statement of Overriding Considerations (SOC) must be included
18 in the record of Project approval and mentioned in the Notice of Determination (NOD) if
19 significant impacts cannot be fully mitigated.

20 **1.4 PERMITS, APPROVALS AND REGULATORY REQUIREMENTS**

21 The proposed Project would be required to obtain numerous permits and approvals, and
22 meet a variety of regulatory requirements. The following regulatory agencies and
23 reviewing authorities have granted existing permits and approvals for existing facilities
24 and will be reviewing this document in order to issue additional permits for the proposed
25 Project.

- 26 • City of Goleta (06-38-DP [AM03] for the EOF);
- 27 • Santa Barbara County Ordinance 2919 (95-DP-024), Venoco, Inc.'s Operating
28 Permit for the EMT and portions of Line 96;
- 29 • Santa Barbara County APCD Permits to Operate (PTO) 7904-R7 (EOF), 8232-
30 R6 (EMT) and 8233-R6 (Barge *Jovalan*) and 8234-R6 (Platform Holly);
- 31 • California Coastal Commission (CCC);

- 1 • CDFG Office of Spill Prevention and Response (OSPR);
- 2 • California State Fire Marshall;
- 3 • Central Coast RWQCB; and
- 4 • U.S. Army Corps of Engineers.

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